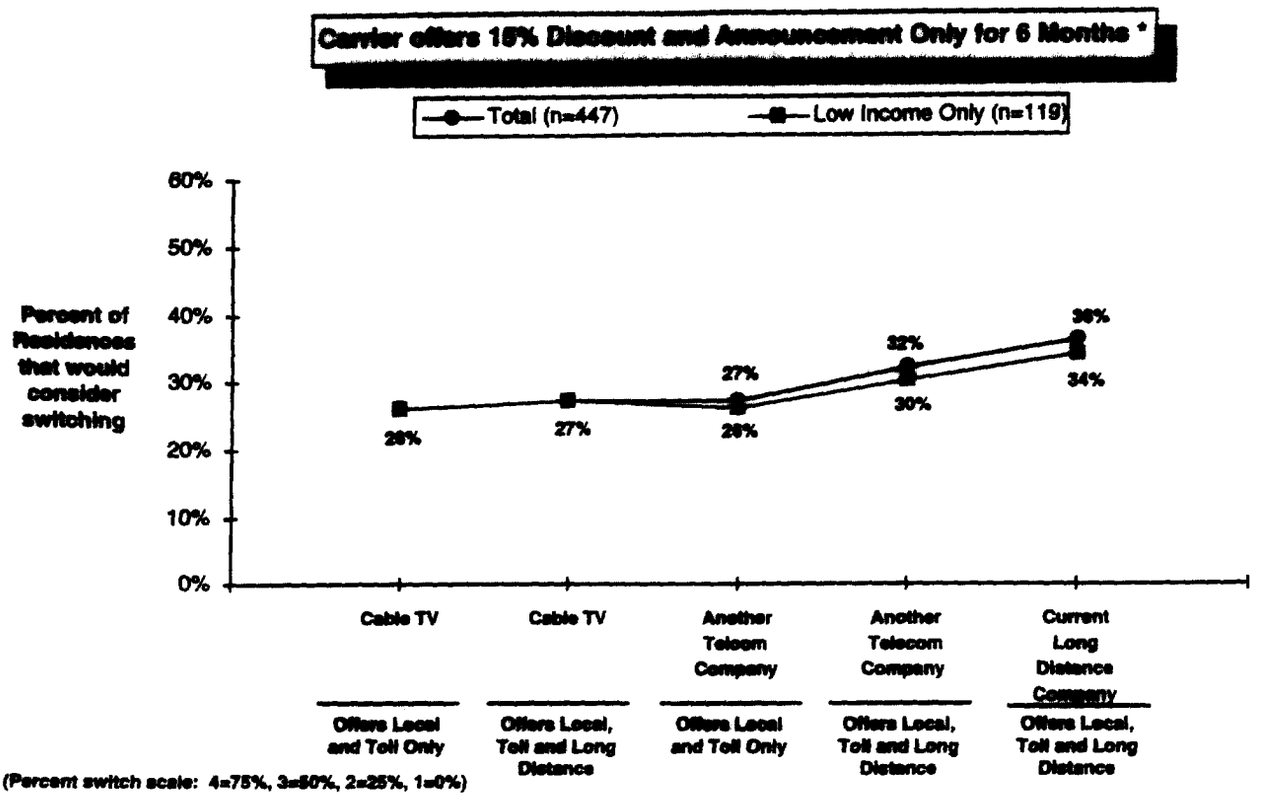
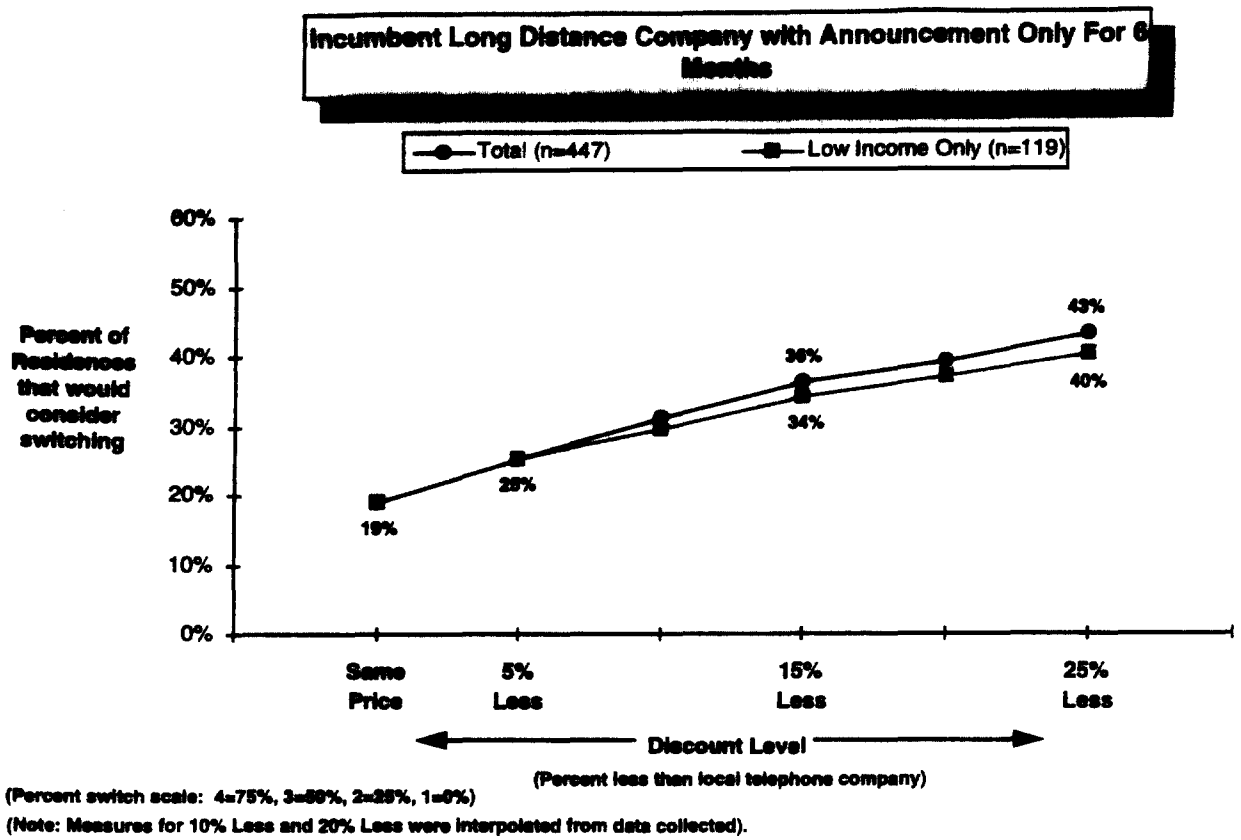
Impact of "Brand" and Service Bundling



While it appears that the incumbent long distance company may have a slight advantage in the local telecommunications market (36% would switch with a 15% discount and number change), residence customers are almost as willing to switch to a different telecommunications provider when bundled services are offered (32%). Without bundled services, one-quarter (27%) would consider switching to another telecommunications company, revealing a preference among residence customers for bundled services. However, the perceived advantage of a "single point of contact" for telecommunications is muted when offered by a cable television company (27%), suggesting that consumers may not perceive cable companies as credible sources for their long distance telecommunications needs.

* Results for additional discount levels included in Appendix

[redacted] Impact of Discounts



(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

Discounts on local and toll service have a high impact on a residence's likelihood to switch local providers and seem to overcome the issue of number portability. While one-quarter (25%) of residences are likely to switch for a 5% discount, close to half (43%) would consider switching for a 25% discount even with a number change. The response to discounting was very similar among the total respondents and the Low Income respondents.

In addition about one-fifth (19%) of residence customers would switch companies without any discount at all and with a number change, most likely for reasons mentioned in the focus groups, such as a "single point of contact" or to "get away" from Pacific Bell.

[redacted] Impact of Discounts

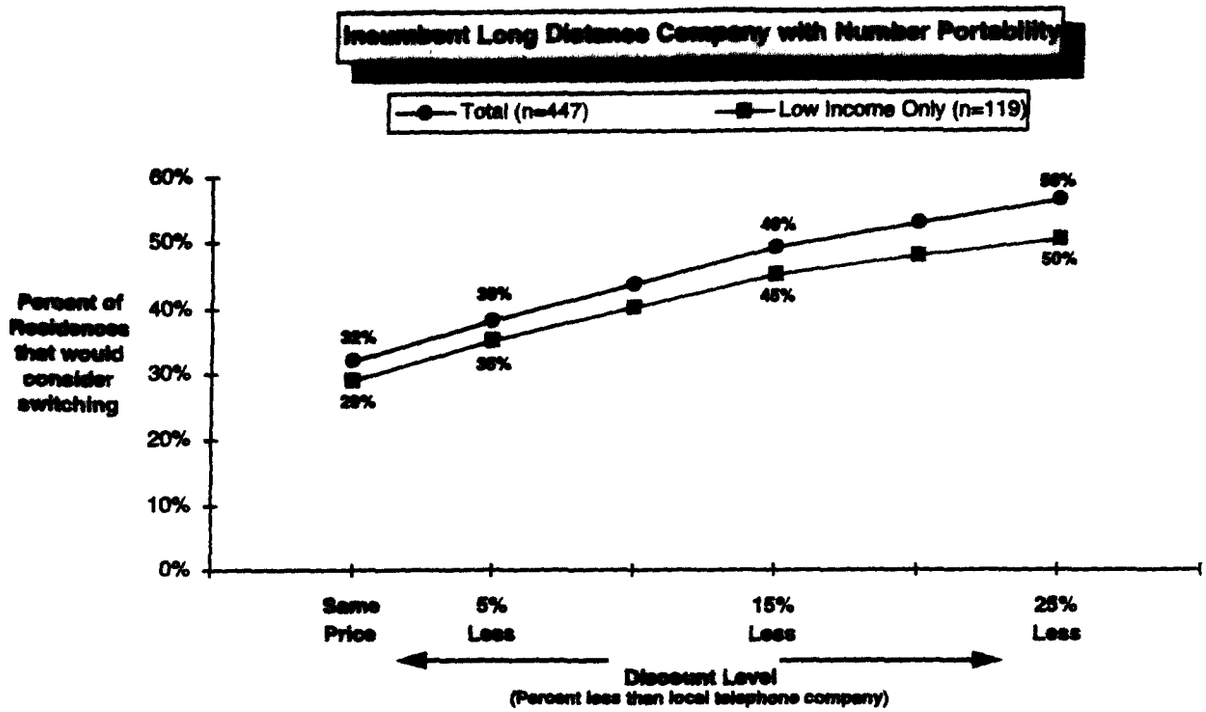
[redacted]

	Same Price	5% Less	15% Less	25% Less
[redacted]				
Another Telecom Company				
– Local, Toll and Long Distance	14%	21%	32%	38%
– Local and Toll Only	9%	16%	27%	33%
Cable TV Company				
– Local, Toll and Long Distance	10%	17%	27%	34%
– Local and Toll Only	8%	15%	26%	32%
[redacted]				
Another Telecom Company				
– Local, Toll and Long Distance	14%	21%	30%	36%
– Local and Toll Only	11%	17%	26%	32%
Cable TV Company				
– Local, Toll and Long Distance	12%	18%	27%	33%
– Local and Toll Only	10%	16%	26%	32%

(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

Regardless of the "brand" of provider, the impact of discounting is approximately the same among the total customer base. With a 25% discount, 24% more customers are likely to switch than at parity (e.g., 38% versus 14% for another telecommunications company; 34% versus 10% for a cable television company). However, there is an interaction between brand and service bundling. While another telecommunications company is slightly more appealing when offering local, toll and long distance services, a cable television company would garner relatively the same amount of customers, with or without bundled services.

Impact of Discounts



(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)
(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

If number portability was enacted, almost one-third (32%) of the residence customers would consider switching their local telephone company without any discount incentive. It would appear that current long distance companies could gain substantial market share by implementing a discount strategy, as more than one-half (56%) of all residences would consider switching if a 25% discount was offered. Additionally , since the price curve levels somewhat at 15% less, this discount level would still create the potential to lose half (49%) of Pacific Bell's residential customer base.

The relative impact of discounts on a Low Income customer's decision to switch may be slightly less than the total customer base, as the differential between the two groups widens between a 5% discount (35% vs. 38% = -3 points) and a 25% discount (50% vs. 56% = -6 points).

[redacted] Impact of Discounts

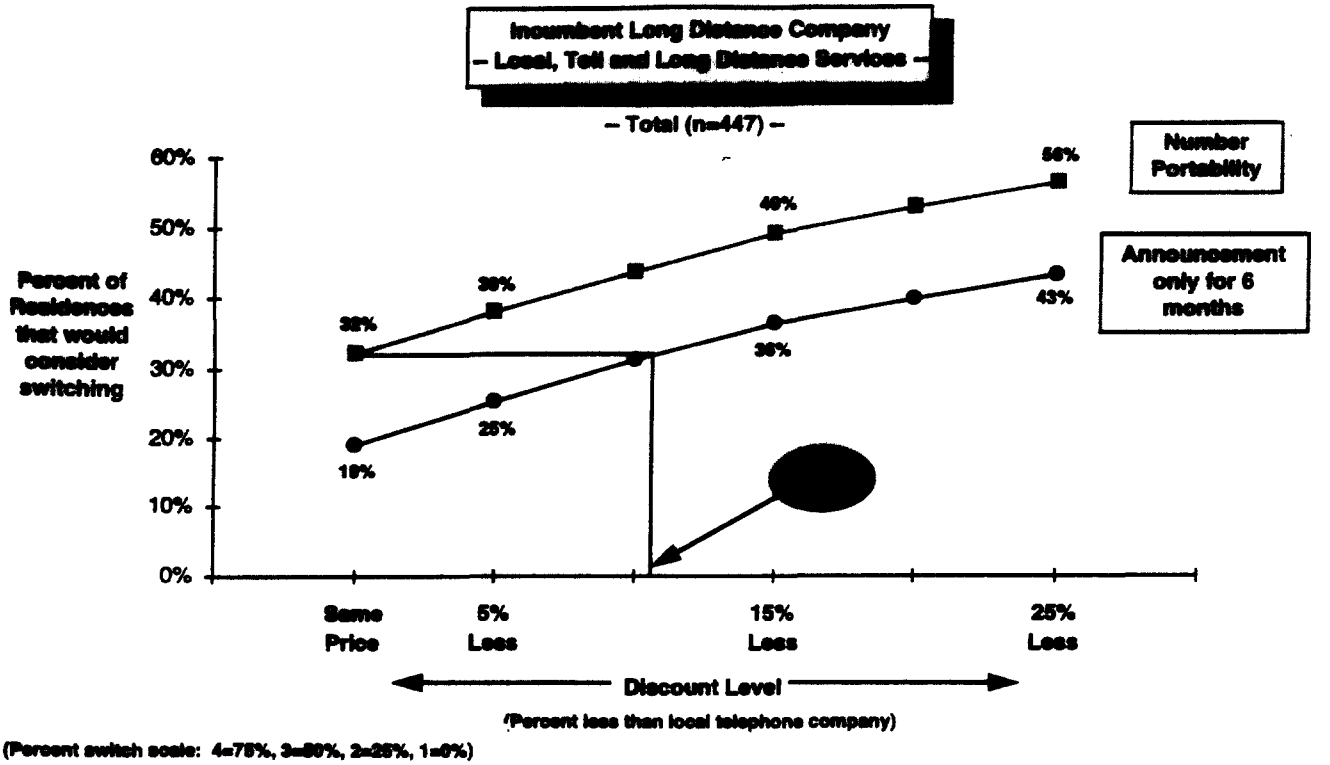
[redacted]

[redacted]	Same Price	5% Less	15% Less	25% Less
Another Telecom Company				
– Local, Toll and Long Distance	27%	34%	45%	51%
– Local and Toll Only	23%	29%	40%	46%
Cable TV Company				
– Local, Toll and Long Distance	23%	30%	41%	47%
– Local and Toll Only	22%	28%	39%	45%
[redacted]				
Another Telecom Company				
– Local, Toll and Long Distance	25%	31%	40%	46%
– Local and Toll Only	21%	27%	36%	42%
Cable TV Company				
– Local, Toll and Long Distance	22%	28%	38%	43%
– Local and Toll Only	20%	26%	36%	42%

(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

Other "brands" also benefit slightly if number portability is enacted. Over one-quarter (27%) would consider switching at the same price if another telecommunications company offered bundled services compared to one-third (32%) for a long distance carrier (see previous page). At parity, less than one-quarter would switch to get bundled services from a cable television company (23%), or to get local and toll services only (22%). Yet regardless of the "brand" of provider or the services bundled, the impact of discounts is dramatic, with approximately one-quarter more customers switching for a 25% discount versus the same price.

Trade-off Between Service Discount and Number Portability



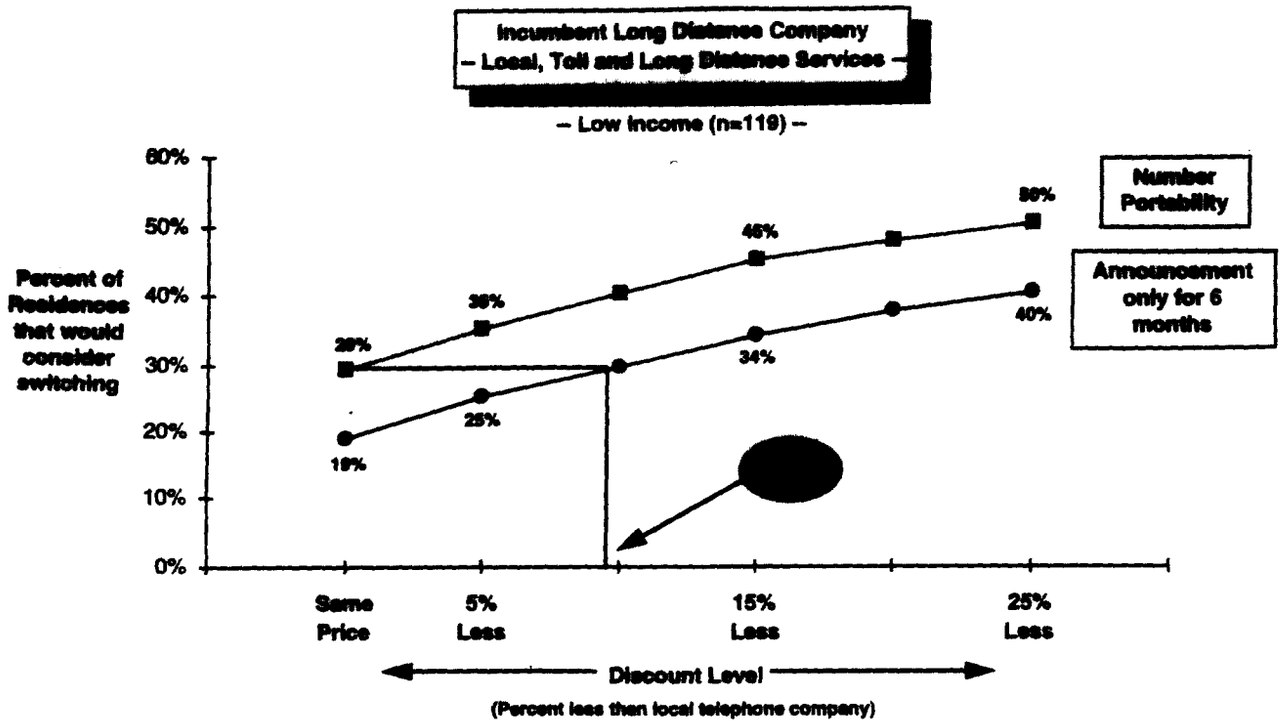
(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

Overall, the relative value of a residential telephone number is equivalent to approximately an 11% discount off local and toll services. If number portability was enacted, almost one-third (32%) would consider switching to an incumbent long distance company if local and toll services were offered at the same price as the current local provider. To achieve this same result without number portability, an 11% discount would be required.

From another perspective, the availability of number portability adds approximately one-tenth (13%) more customers in any given situation (e.g., 32% versus 19% at same price; 56% versus 43% at 25% less).

Trade-off Between Service Discount and Number Portability

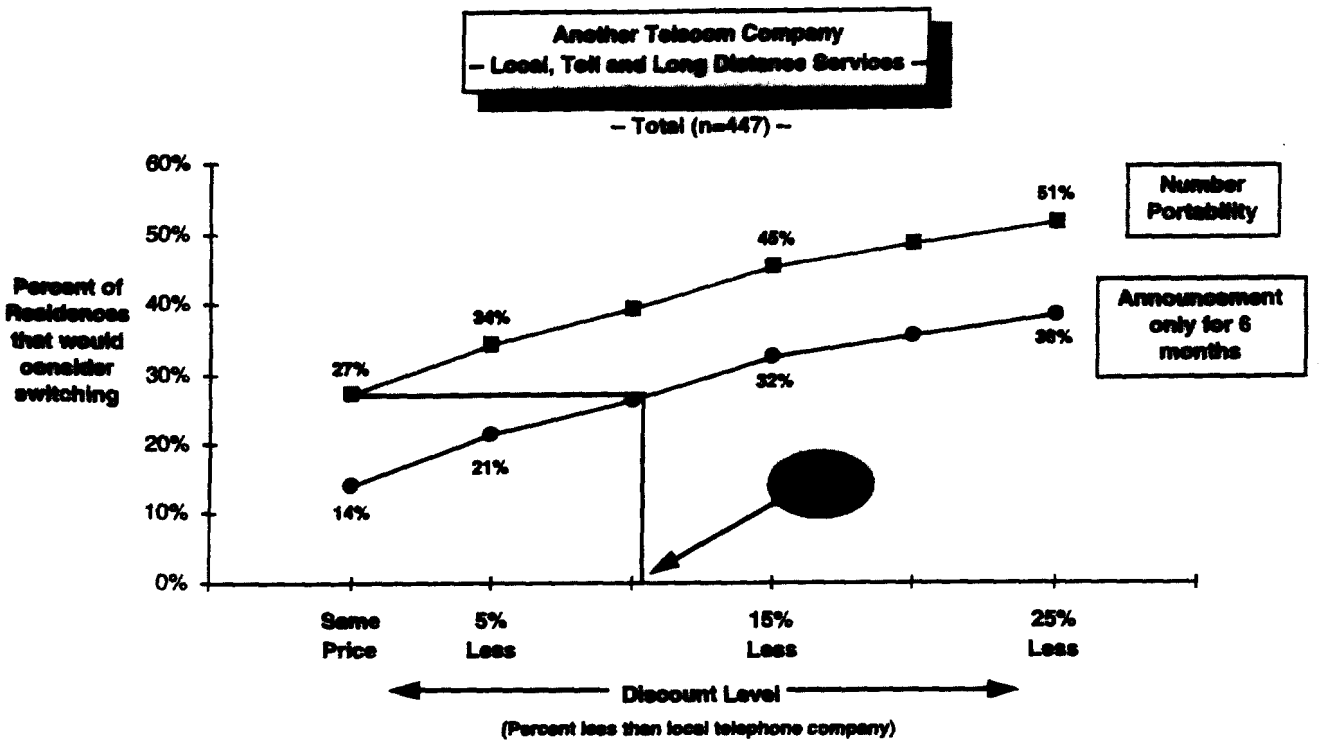


(Percent switch scale: 4=76%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

Among Low Income customers, the discount required to overcome a telephone number change is slightly less, and equivalent to a 9% discount off local and toll services. In this segment, adding number portability will entice 10% more customers to switch than without number portability.

Trade-off Between Service Discount and Number Portability

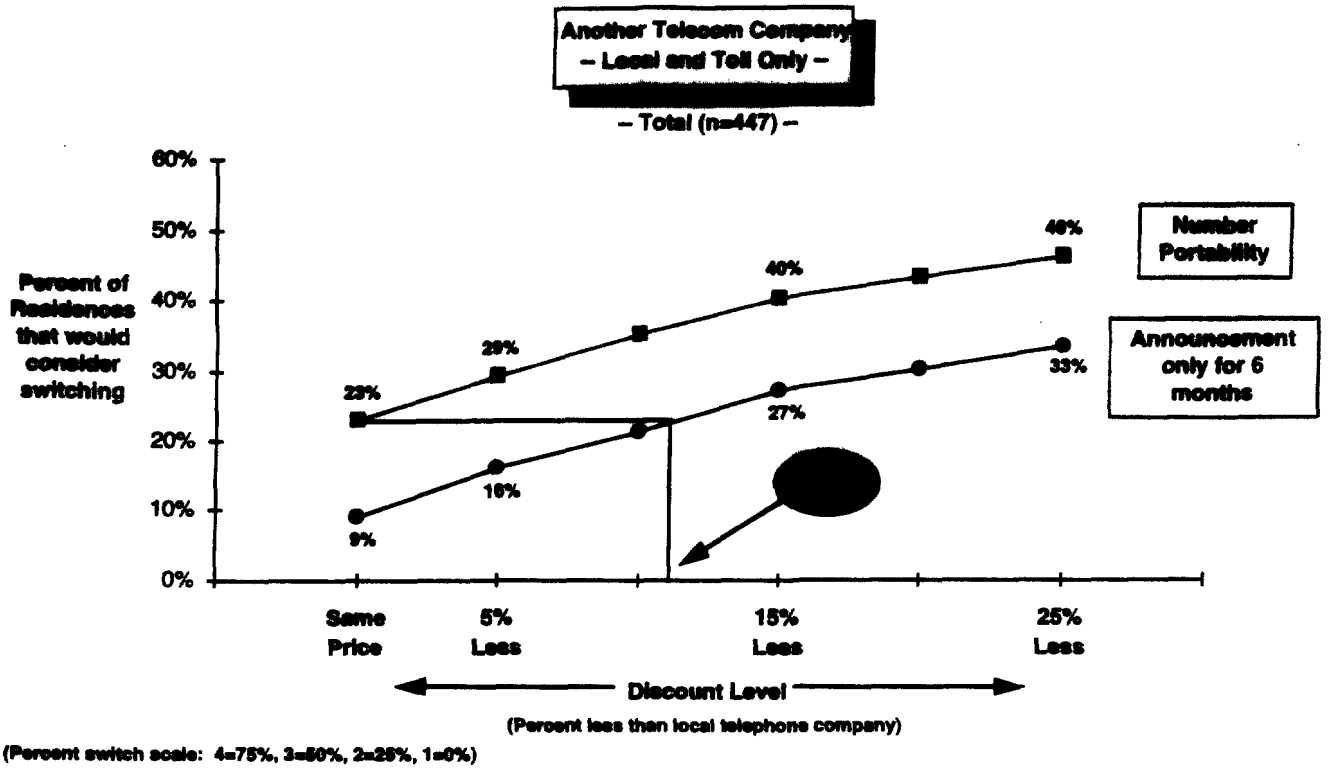


(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

If number portability was available, 27% would switch to another telecommunications company offering bundled services if offered at the same price as the current local access provider. To garner the same market penetration without number portability, an 11% discount would be required.

Trade-off Between Service Discount and Number Portability

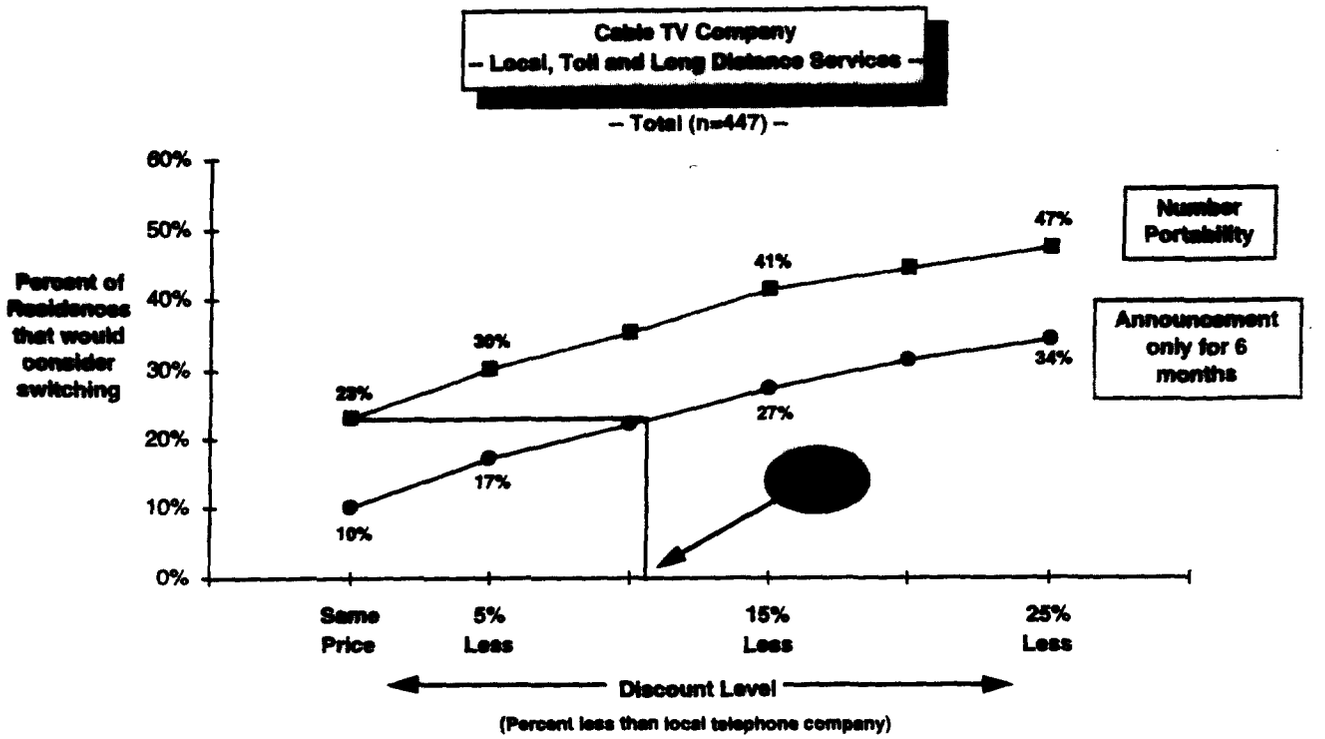


(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

When another telecommunications company offers local and toll services only, the amount of customers willing to switch for no discount is slightly reduced, even with number portability (23% without versus 27% with bundled services). However, the relative value of a residential telephone number remains the same, as an 11% discount will overcome the advantage of having number portability.

Trade-off Between Service Discount and Number Portability

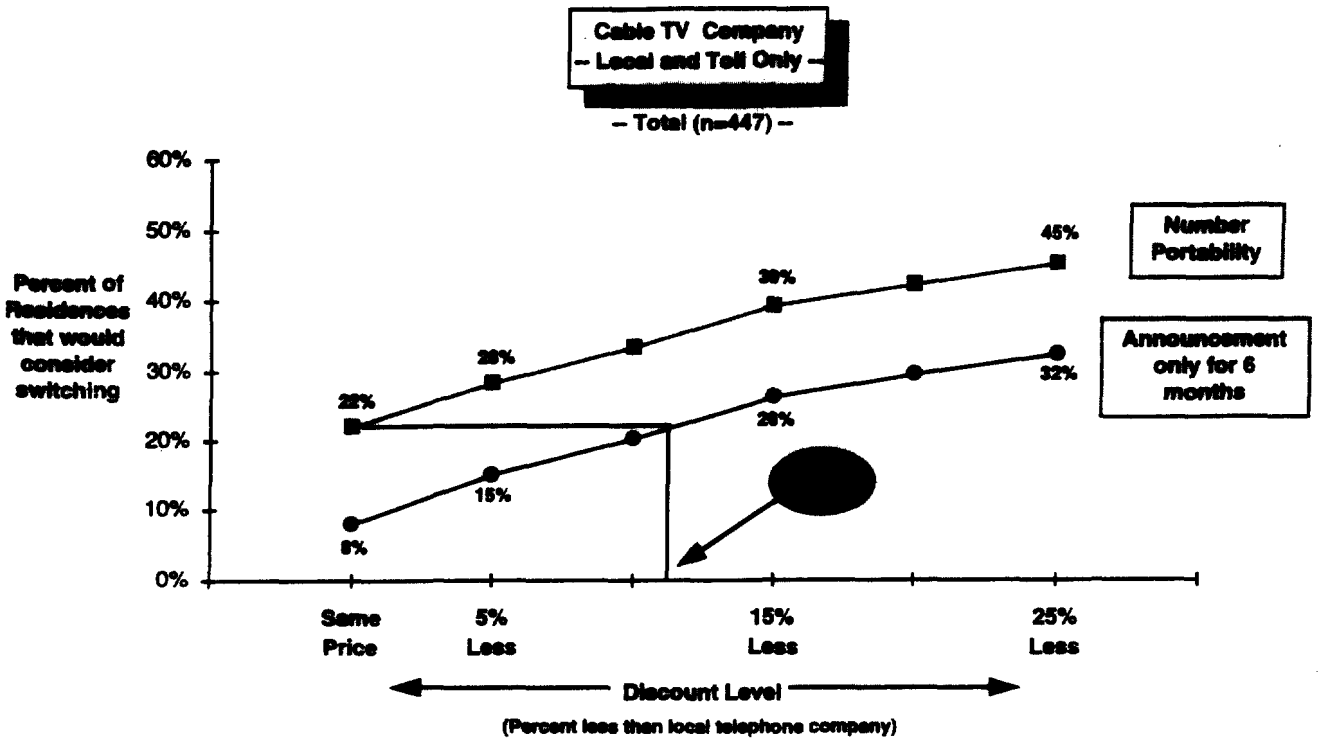


(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

At parity, only 10% would switch to a cable television company offering bundled services if a number change was required. However, with number portability, 23% would switch to a cable television company at the same price as the local telephone company.

Trade-off Between Service Discount and Number Portability



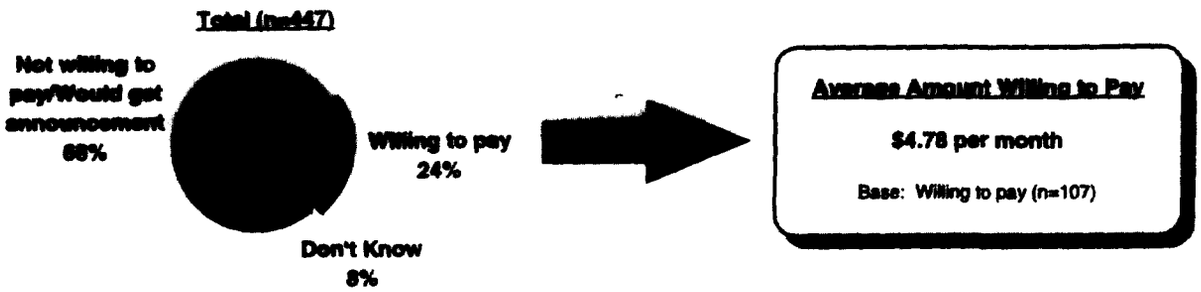
(Percent switch scale: 4=75%, 3=50%, 2=25%, 1=0%)

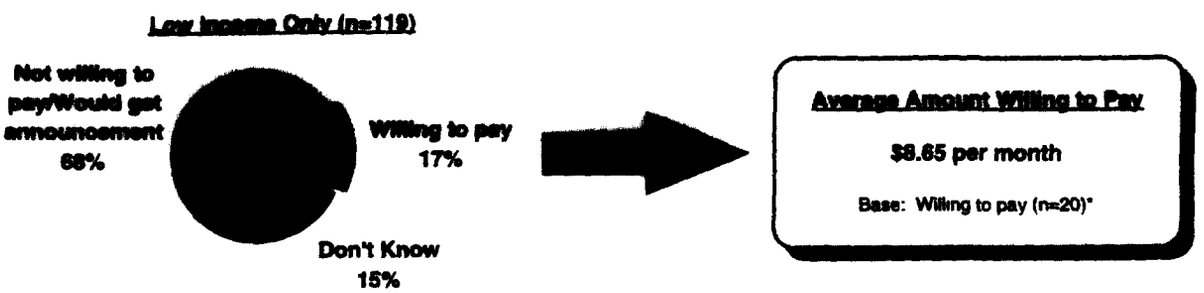
(Note: Measures for 10% Less and 20% Less were interpolated from data collected).

If a cable television company were to offer local and toll services only, the discount required to compensate for a telephone number change remains at 11%, even though the absolute proportion of potential customers is slightly lower than under other scenarios.

Willingness to Pay to Keep Telephone Number

Assuming you had to change your number to switch local access providers, how much would you be willing to pay to keep your telephone number?





* Small sample size; use with caution

While the majority of residence customers (68%) would rather change their number than pay to keep it, almost one-quarter (24%) of the respondents were willing to pay to retain their number. As these customers are willing to pay about $5.00 per month to retain their number, it might be possible to offer an optional number retention service, for those who are willing to pay for it, if number portability is not available.

Interestingly, the Low Income respondents were willing to pay almost double the amount of the overall customer base, although a smaller proportion of Low Income customers would be willing to pay (17%).

Value of Number Portability by Residence Characteristics

		Incumbent Long Distance Company Offers Service for 15% Discount *		
		Percent of Residences that would consider switching		
		Announcement for 6 months	Number Portability	Change
Age				
• 18-34 years	(n=121/27%)	41%	54%	+13
• 35-54 years	(n=182/41%)	37%	51%	+14
• 55 and older	(n=138/32%)	30%	42%	+12
People in Household				
• One	(n=85/19%)	32%	47%	+15
• Two	(n=154/35%)	35%	49%	+14
• Three or more	(n=205/46%)	39%	51%	+12

To answer the objective of which residential customers would be most impacted by having to switch their telephone numbers, the proportion of residences that would consider switching their telephone line with and without number portability (all other elements being held constant) was evaluated by different residence characteristics.

When evaluating customers by age, number portability appears to impact residential customers quite similarly. However, number portability has a greater impact on customers who have fewer people in the household (+15 points for 1 person and +14 points for 2 persons), versus larger residences (+12 points).

* Results for additional discount levels included in Appendix

Value of Number Portability by Residence Characteristics

		Incumbent Long Distance Company Offers Service for 15% Discount *		
		Percent of Residences that would consider switching		
		Announcement for 6 months	Number Portability	Change
Total Monthly Bill				
• <$35	(n=166/39%)	32%	46%	+14
• $35 - $59	(n=116/27%)	35%	49%	+15
• $60+	(n=142/34%)	42%	54%	+12
Call Waiting				
• Yes	(n=180/40%)	36%	49%	+13
• No	(n=267/60%)	36%	49%	+13
Current Phone Number				
• Published	(n=278/63%)	36%	50%	+14
• Non-Published	(n=158/37%)	35%	47%	+12

When looking at residential customers by monthly bill amount, number portability has less impact on customers who spend $60 or more (+12 points) when compared to customers who spend less than $60 (+14 to +15 points), most likely because customers with higher bills are more sensitive to and interested in pricing discounts.

Customers with published numbers appear to be slightly more impacted by number portability (+14 points) than customers with non-published numbers (+12 points).

Subscription to call waiting was not a distinguishing characteristic in determining which customers would be most impacted by number portability.

* Results for additional discount levels included in Appendix

Value of Number Portability by Residence Characteristics

	Incumbent Long Distance Company Offers Service for 15% Discount *		
	Percent of Residences that would consider switching		
	Announcement for 6 months	Number Portability	Change
Long Distance Carrier			
• AT&T (n=306/69%)	36%	48%	+12
• MCI (n=65/15%)	38%	55%	+17
• Sprint (n=32/7%)	39%	56%	+17
Ever Switched LD Carrier			
• Yes (n=167/37%)	38%	52%	+14
• No (n=280/63%)	35%	48%	+13
"Very Satisfied" with Pacific Bell			
• Yes (n=311/70%)	34%	47%	+13
• No (n=119/30%)	43%	56%	+13

Which long distance company a customer uses does have an effect on a customer's likelihood to consider switching, especially if number portability is available. Customers who currently use MCI or Sprint (+17 points) appear to be more affected by number portability versus AT&T customers (+12 points), possibly reflecting the higher satisfaction levels for AT&T and a lower willingness to switch in general.

A consumer's past long distance switching behavior or their level of satisfaction with Pacific Bell does not have an impact on the value placed on keeping a telephone number.

* Results for additional discount levels included in Appendix

Value of Number Portability by Residence Characteristics

	Incumbent Long Distance Company Offers Service for 15% Discount *		
	Percent of Residences that would consider switching		
	Announcement for 6 months	Number Portability	Change
Work at Home			
• Yes (n=87/20%)	36%	54%	+18
• No (n=360/80%)	37%	49%	+12
Own Home			
• Yes (n=199/62%)	36%	50%	+14
• No (n=122/38%)	37%	49%	+12
Ever Changed Phone Number			
• Yes (n=288/64%)	37%	50%	+13
• No (n=159/36%)	34%	48%	+14
Likely to Move in Next 2 Years			
• Yes (n=149/33%)	36%	49%	+13
• No (n=298/67%)	36%	50%	+14

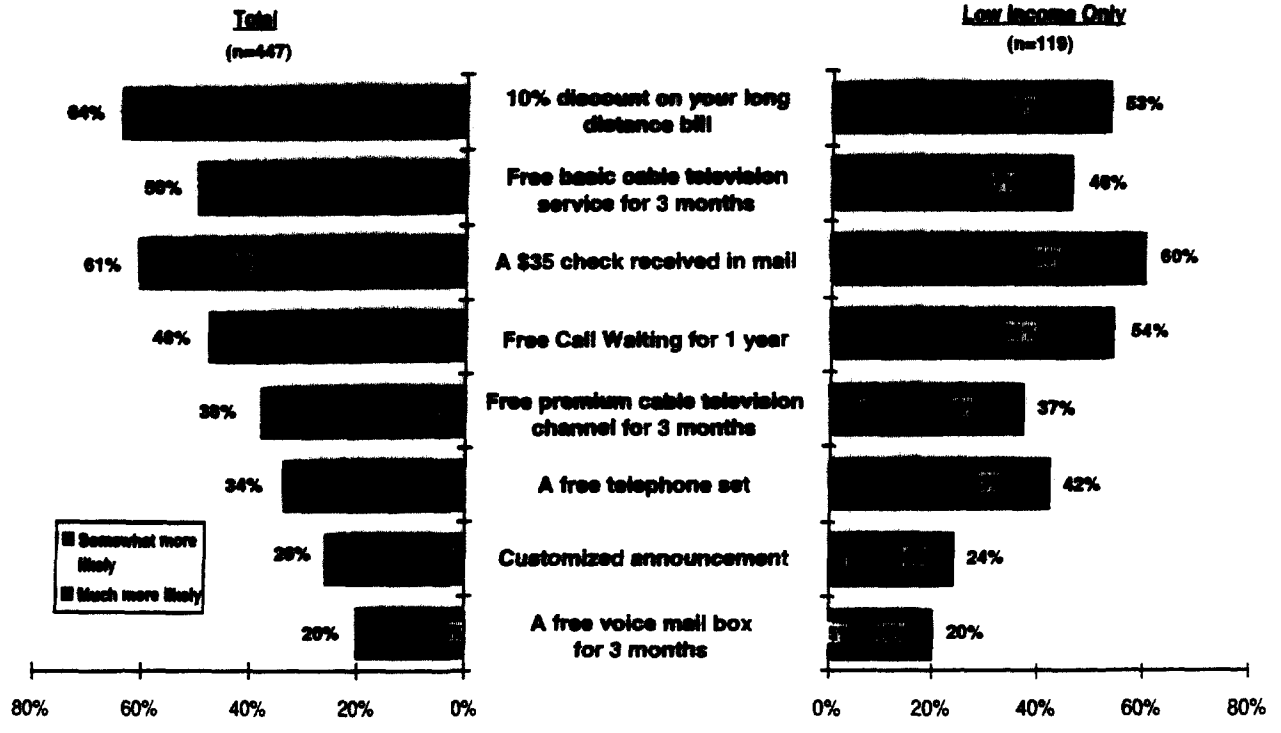
Among customers who work at home, the availability of number portability has a significant impact on the likelihood to switch (+18) compared to those who do not work at home (+12). With number portability, over half (54%) of the work at home segment would switch. While this was the segment most impacted by number portability, work at home accounts for only 20% of the respondent base.

Descriptors regarding the mobility of a customer - whether they own a home, have ever changed their phone number or are likely to move - do not substantially influence the "value" that customers place on their number. The increase between number change announcement and number portability is approximately +13 in any of these segments.

* Results for additional discount levels included in Appendix

Impact of Other Elements on Likelihood to Switch Providers

Assuming you would have to switch your telephone number, how much would each of the following influence your likelihood of switching local access providers?

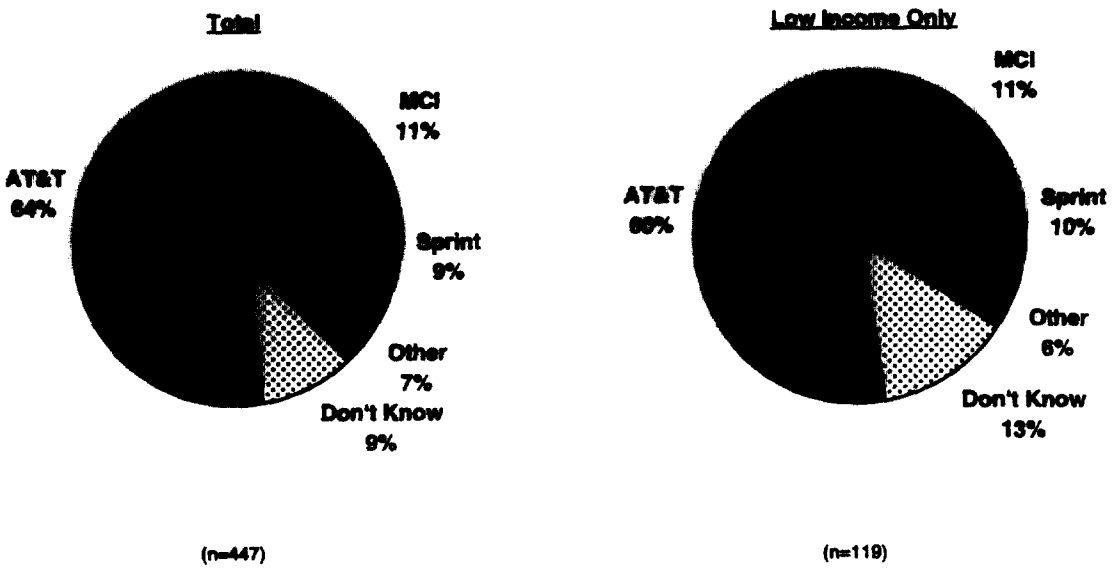


Although not tested in the conjoint analysis, the impact of possible marketing incentives were evaluated by asking respondents how much these incentives would impact their likelihood of switching if a number change is required. Financial incentives appear to have the most influence: a 10% discount off long distance service, a $35 check, free basic cable television service and free call waiting would each make about one-fifth of all respondents "much more likely" to switch providers.

The other incentives tested, including a customized number change announcement, do not have a strong impact on willingness to switch, although a free telephone set was significantly more influential among the Low Income segment.

Preferred Provider for Local Access

Assuming that you were planning to switch your local and toll service and all companies were making basically the same offer, which company would you choose?



Previously it was shown that an incumbent long distance company was preferred over another telecommunications company or cable company when switching local and toll providers. When asked which specific company they would choose (from a list of telecommunications and cable companies), this finding was supported. If all residential customers switched their local access from Pacific Bell, the preference for an alternative provider would closely resemble current long distance market share.

Preferred Provider for Local Access

Assuming that you were planning to switch your local and toll service and all companies were making basically the same offer, which company would you choose?

	Current Long Distance Company - Total		
	AT&T	MCI	Sprint
AT&T	75%	40%	31%
MCI	6%	35%	9%
Sprint	6%	11%	44%
Other	4%	6%	7%
Don't Know	9%	8%	9%
	(n=306)	(n=65)	(n=32)*

(Low income Sample too small for analysis)

* Small sample size; use with caution

However, the strength of this incumbency effect varied substantially among current customers of the Big 3 long distance companies. While the majority of AT&T customers (75%) would bundle their local, toll and long distance services with AT&T, less than half of MCI (35%) and Sprint (44%) customers wanted local and toll services from their current long distance company. In fact, more MCI customers are likely to switch local and toll services to AT&T than to MCI.

[redacted] Impact of Referral Announcement on Calling Behavior

When you call a business/residence and hear a referral announcement, what percent of the time do you hang up and immediately redial the new telephone number?

	[redacted]		[redacted]	
	Total	Low Income Only	Total	Low Income Only
100% of the time	56%	45%	64%	61%
75% - 99%	26%	22%	21%	15%
50% - 74%	7%	9%	6%	6%
25% - 49%	3%	4%	2%	2%
0%- 24%	6%	15%	6%	14%
Don't Know	2%	5%	1%	2%
	(n=447)	(n=119)	(n=447)	(n=119)
Mean percent	86%	75%	89%	82%

One implication that has been put forth in discussions about requiring number portability is whether a business (or residence) is negatively impacted when a caller hears a number change announcement. When calling a business and hearing an announcement indicating a number has changed, the majority of the respondents (56%) immediately hang up and dial the new number. In fact, the new number would be called 86% of the time.

When calling a residence, those results are even higher (64% always call back immediately for an average of 89% of all announcement numbers being called). Although residence and business customers may believe they are "more difficult to find" if their phone number changes, most callers will pursue them at their new number.

Appendix

- Additional Results
- Research Addendum
- Model versus Survey Comparison
- Sample Disposition
- Focus Group Recruitment Screener
- Moderator's Guide
- Telephone Recruitment Questionnaire
- Mail Survey Booklet

Number Portability Research Addendum

Both the residence and business research studies were conducted via a full-profile conjoint analysis, where respondents evaluated a series of different "product" configurations or scenarios. The scenarios were developed by combining the individual attribute levels that were determined to be relevant to the study into actual product offerings (see the Methodology section of the Final Report for a description of these attribute levels).

A fractional factorial design was used, where each respondent evaluated a subset of the total number of possible configurations. Given the attributes and levels identified for this study (brand/service bundling (3 levels); discount off of Pacific Bell (4 levels); impact on telephone number (5 levels)), a total of 60 (3 x 4 x 5) possible scenarios existed. However, to reduce respondent burden, each respondent evaluated 25 different scenarios, which were systematically selected to ensure that the attribute levels were exposed to respondents in a balanced fashion.

For each scenario that was administered, respondents indicated their interest in the competitive offering by responding to the following questions (dependent variables):

Residence

How likely would you be to consider switching to this company?

Very likely	*4*
Somewhat likely	*3*
Not very likely	*2*
Not at all likely	*1*

Business *

How willing would you be to switch any of these lines to this company?

Very willing	*4*
Somewhat willing	*3*
Not very willing	*2*
Not at all willing	*1*

What percent would you move? _____ %

* For the business market, the measure above was collected for each of the following line types: main lines, other lines, DID numbers.

After the data collection was completed, the conjoint analysis was conducted to derive the relative importance of each of the attributes and develop a model to estimate the proportion of consumers who would switch under any specific scenario.

The conjoint analysis was conducted using an Ordinary Least Squares regression analysis which featured the use of dichotomous or "dummy" variables. For each attribute level (independent variable), a dummy variable was created that indicated the presence or absence of that level within a specific product configuration. The OLS regression was then used to estimate the effect of those dummy variables on the dependent variable (i.e., their impact on the decision to switch providers.

Since full-profile conjoint analysis is conducted at the respondent level, the OLS regression was conducted for each respondent and estimates of the influence of the independent variables on the dependent variables were calculated for each individual. Then, a predictive model was developed that calculated the overall impact of any combination of independent variables.

The development of the models differed slightly between the business and residence studies because of the additional dependent variables used in the business survey and the need to weight the results to reflect the actual number of lines that would be switched. This process is described below for each study:

Development of Residence Model

Since no weighting was required for the residence results, the estimates for each independent variable were averaged across all respondents to calculate estimates for the total sample. Then, for each scenario (combination of elements) to be evaluated, the estimates (plus the constant) of the specific elements included in that scenario were summed. This calculation resulted in a value on the four-point scale (e.g., 3.28), which was then adjusted to reflect the following conversion factors:

Very likely.....4	75%
Somewhat likely.....3	*50%*
Not very likely.....2	*25%*
Not at all likely.....1	*0%*

After the conversion factors were applied, the "demand" or proportion of residences likely to switch under that scenario was determined (e.g., 57%).

In addition, the likelihood of switching among separate residence segments (e.g., work at home) was also evaluated. To do this, the respondent-level estimates for all respondents who qualified for a specific segment were averaged, then the specific scenario calculations were performed on the averaged estimates for each segment.

Development of Business Model

Three major differences existed between the residence and business studies that caused the business model to be created in a slightly different fashion. First, the business study had a total of 6 dependent variables – the likelihood of switching and percent of lines a business would switch for three different types of lines. Second, since each business had a different number of lines, weighting on this variable was required to determine the proportion of all business lines that would be switched. Finally, the business sample was stratified according to number of employees which required additional weighting to reflect the actual business population. To account for these differences, the following process was used to develop the business model after the respondent-level estimates were determined using the OLS regression.

The first dependent variable, likelihood of switching (percent of businesses likely to switch), was determined as follows. Because of the weighting required, for any scenario, each respondent's score on the four point scale was calculated, then the conversion factors were applied. The weighted average of these values was then calculated using the employee size weights, providing the percent of businesses likely to switch.

For the next dependent variable, percent of lines a business would switch, the OLS regression was performed and estimates created for each respondent as with the likelihood of switching variable. The two dependent variables for each type of line were combined as follows to determine the proportion of all business lines that would be switched.

First, the percent of lines a business would switch was calculated for any scenario using the respondent-level estimates for that dependent variable. This result was then multiplied by the likelihood of that business to switch (the first dependent variable) and by the total number of lines that each individual business had to determine the number of lines that a business would be likely to switch. The weighted average (by employee size) was calculated to produce the average number of lines switched under any scenario. This was divided by the average number of lines that business respondents reported to come up with the proportion of all business lines likely to be switched.

This entire process was repeated three times, one for each type of line. In each case, calculations were only conducted for respondents who had that specific type of line.

The attached spreadsheet provides an example of how the results were calculated for the business survey.

[redacted] Sample Disposition

Total Sample Used	**10,438**	**100%**	
Live Sample	**2,807**	**27%**	*of total sample*
Busy	106	1%	
No Answer	1,525	15%	
Device (Answering Machine)	674	6%	
Call Backs	498	5%	
Partial	2	--	
Dead Sample	**7,631**	**73%**	*of total sample*
Total Non-Usable	**6,194**	**81%**	*of dead sample*
Language Barrier	1,239	16%	
Not Available during study	53	1%	
Refused	2,102	28%	
Called 4 Times	236	3%	
Fax/Modem/Pager	176	2%	
Disconnects	1,648	22%	
Phone location not qualified (business)	695	9%	
Invalid Referral Number	45	1%	
Total Contacted	**1,437**	**19%**	*of dead sample*
Qualified	**1,342**	**93%**	*of total contacted*
Recruited	812	57%	
Terminates	279	19%	
Over-quota (High Income)	251	17%	
Not Qualified	**95**	**7%**	*of total contacted*
Works for Competitor	94	7%	
Not Pacific Bell Customer	1	--	
Total Recruited	**812**	**100%**	*of total recruited*
Total Returned	**555**	**68%**	*of total recruited*
Unuseable	13	2%	
Returned after cut-off	26	3%	
Completes	516	64%	*of total recruited*